

REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 17-20 and 22 are amended. Claims 1, 3, 4, 7-9, 11, 12 and 15-23 are pending.

I. Rejection under 35 U.S.C. § 103

In the Office Action, at page 2, numbered paragraph 2, claims 1, 3, 7, 9, 11, 15 and 17-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,130,418 to Van Rosmalen et al. in view of U.S. Patent No. 6,181,670 to Nagasato et al. This rejection is respectfully traversed because the combination of the teachings of Van Rosmalen and Nagasato does not suggest:

a focusing coil member and a tracking coil member installed on the base, separated from each other; and

a single magnet member installed on the blade between the focusing coil member and the tracking coil member,

as recited in independent claims 1 and 9.

In Van Rosmalen, a focus coil 39, tracking coils 41 and a main lens 15 are carried by a movable part 35 of the optical pickup actuator. A single permanent magnet 45 is carried by a stationary part 33 of the optical pickup actuator.

As conceded by the Examiner, Van Rosmalen does not suggest that the focus coil 39 and the tracking coils 41 are installed on a base, while the magnet 45 is installed on a blade (or the holder). The Examiner indicates that Nagasato makes up for the deficiencies in Van Rosmalen, alleging that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of the parts arranged as taught by Nagasato et al. into the system of Van Rosmalen et al. The motivation would be for an obvious rearrangement of parts to serve the same purpose." The Applicants respectfully disagree.

In Nagasato, the coils 112, 114 are disposed on base block 8, and the magnets 5a-d, 116 and 118 are disposed on a lens holder.

However, the entire structure, including the use of two magnets 116, 118, two sets of coils 112, 114, each including a focusing coil and a tracking coil, and the non-asymmetrical relationship of the magnets 116, 118 in relation to the coils 112, 114 is entirely distinct from that of Van Rosmalen. Therefore, it is particularly unclear as to why one of ordinary skill in the art would rearrange the parts of Van Rosmalen in the manner as that of Nagasato, specifically

because Nagasato requires that the magnets 116, 118 be provided on the non-stationary holder and that the coils 112, 114 be provided on a stationary base. The cited "apparent reason" does not suggest why one of ordinary skill in the art would specifically arrange the magnet 45 of Van Rosmalen on the movable part 35 and arrange the tracking and focusing coils 41, 39 on the stationary part. Merely reciting that it would be an obvious rearrangement of parts does not clarify why one of ordinary skill in the art would have been suggested to change the arrangement of the magnet 45 and the coils 39, 41 of Van Rosmalen.

Further, M.P.E.P. § 2144.04 clarifies that "[t]he mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984). Although KSR International v. Teleflex provides more flexibility regarding providing a reason for the worker in the art to make the necessary changes in the reference device, KSR still requires that an Examiner provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness" and the Examiner must make "explicit" this rationale.

While the Examiner asserts that combining Van Rosmalen and Nagasato would be an obvious rearrangement of parts "to serve the same purpose," the Examiner has failed to articulate an apparent reason with rational underpinning to suggest why one of ordinary skill in the art would modify Van Rosmalen to place the magnet 45 onto a movable blade 35 and position the coils 39, 41 on the stationary part. "To serve the same purpose" does not meet the level necessarily required by KSR International v. Teleflex to establish a *prima facie* case of obviousness.

In contrast, the present invention does articulate an apparent reason with rational underpinning as to why one of ordinary skill in the art would rearrange the coils and the magnet to position the coils on the stationary part and the magnet on a movable part when the optical pickup actuator is asymmetrical. In particular, as discussed at paragraph 0010 of the present specification, for example, one of the problems with a conventional (e.g., Van Rosmalen) asymmetric optical pick actuator is that since the coil, particularly the focusing coil, is directly in contact with the blade in which the objective lens is mounted, heat generated by applying current to the coils is directly transferred to the blade and the objective lens, thereby reducing the rigidity of the blade. Thus, the performance of a conventional design of the asymmetrical optical pickup

actuator is deteriorated, resulting in the control performance being changed and the objective lens being damaged.

Paragraphs 0014-0016 further indicate problems with the structure of the conventional asymmetrical optical pickup actuator. For example, when the coils are installed on the movable part, a plurality of components, for example, a printed circuit board and the wires for electrical connection, must additionally be installed on the blade to apply current to the coils, which thus requires additional soldering.

Thus, as discussed at paragraphs 0019 and 0054, for example, of the present specification, because the coils are separated from the moving unit that holds the objective lens, the performance of the moving unit will not be reduced due to heat. Further, as discussed at paragraph 0056, since components for electrical connection and current driving are removed from the moving unit and instead installed in the base, and a process for electrically connecting the components is performed in the base, the manufacture of the optical pickup actuator is easier and the defect rate is able to be reduced.

The Examiner has not provided a similar reasoning as to why the rearrangement of parts would occur and as to why one of ordinary skill in the art would have been led to modify Van Rosmalen in such a manner. Further, as clearly discussed above, Nagasato operates in a completely different way from Van Rosmalen, and thus rearrangement of the parts of Van Rosmalen to be similar to the position of Nagasato would not serve the same purpose because the two optical actuators operate in a completely different manner.

In addition, the present invention discloses a single magnet member installed on the blade between the focusing coil member and the tracking coil member. In contrast, in Van Rosmalen, the magnet 45 is not necessarily disposed between the focus coil 39 and the tracking coil 41 (see col. 6, lines 2-4). According to col. 6, lines 2-4 and Fig. 3 of Van Rosmalen, the focus coil 39 and the tracking coil 41 extend only partly into the air gap 47. Therefore, the magnet 45 is not necessarily disposed between the focus coil 39 and the tracking coil 41. As a focus coil is typically wound to surround a magnet in a general actuator and Van Rosmalen does not disclose the description of further detailed structure of the focus coil 39 and in light of the description at col. 6, lines 2-4, it is obvious than the magnet 45 in Van Rosmalen is not necessarily disposed between the focus coil 39 and the tracking coil 41.

Therefore, as the combination of the teachings of Van Rosmalen and Nagasato does not suggest "a focusing coil member and a tracking coil member installed on the base, separated from each other; and a single magnet member installed on the blade between the focusing coil

member and the tracking coil member,” as recited in independent claims 1 and 9, and as the cited “apparent reason” is inadequate to suggest combining the teachings of Van Rosmalen and Nagasato, claims 1 and 9 patentably distinguish over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Also, the combination of the teachings of Van Rosmalen and Nagasato does not suggest “driving a coil system including a focusing coil member and a tracking coil member mounted on a base separate from the movable blade, separated from the blade, such that an interaction with a single magnet on the movable blade by one of the focusing coil member and the tracking coil member controls the moving of the blade,” as recited in amended independent claim 17. Therefore, claim 17 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Claims 3, 7, 11, 15 and 18-23 depend either directly or indirectly from independent claims 1, 9 and 17 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. Therefore, claims 3, 7, 11, 15 and 18-23 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

In the Office Action, at page 6, numbered paragraph 3, claims 4, 8, 12 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nagasato in view of Van Rosmalen, further in view of U.S. Publication No. 2003/0198148 to Choi. This rejection is respectfully traversed.

As discussed above with respect to independent claims 1 and 9, the combination of the teachings of Van Rosmalen and Nagasato does not suggest all the features of independent claims 1 and 9. Choi fails to make up for the deficiencies in Van Rosmalen and Nagasato. Claims 4, 8, 12 and 16 depend either directly or indirectly from independent claims 1 and 9 and include all the features of claims 1 and 9, plus additional features that are not discussed or suggested by the references relied upon. For example, claim 4 recites that “the pair of tilt driving coil members are installed under the one coil member used as the focusing coil member.” Therefore, claims 4, 8, 12 and 16 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejections is respectfully requested.

Conclusion

In accordance with the foregoing, claims 17-20 and 22 have been amended. Claims 1, 3, 4, 7-9, 11, 12 and 15-23 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

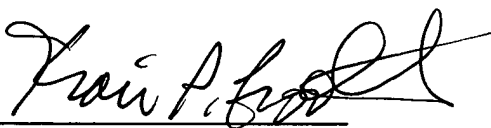
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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